

(iv) The programme of rotational collection requires further knowledge and will be considered after sufficient investigations have been made by gazetted officers.

(v) The right to collect birds' nests will be sold by tender for a period of 3 or 6 years so that the monopolist can:

- (a) assure himself of a reasonable security of tenure,
- (b) improve the nesting caves by arranging to fell trees and shooting falcons,
- (c) do the patrolling in his own interest.

I may add that the prescriptions of the Working Plan are carried out to the extent funds and security conditions permit.

Nest collection was also done pre-war on a very small scale in the old Bassein Forest Division. To quote from the Working Plan for the period 1929-30 to 1938-39: 'The present lease for edible birds' nests expires on the 30th of June 1931. The revenue from this source has fallen off in recent years and persistent collection appears to be reducing the number of birds. When the present lease expires, the collection of nests should be closed down for five years in order to give the birds a chance of breeding. When a lease is again given out the confinement of nest collection to the period from November to January should be considered.' No fresh lease appeared to have been issued since 1931.

NOS. 25-26, RANDERIA BUILDING,  
PHAYRE STREET,  
RANGOON,  
July 3, 1958.

T. CHEIN HOE,  
*Chief Conservator of Forests, Burma.*

## 12. REMARKS ON THE SUBSPECIES OF THE GRASS OWL, *TYTO CAPENSIS*

Recently I was able to study the material of this species in the British Museum (Natural History). This has necessitated some changes in my earlier conclusions (Amadon & Jewett, 1946, *Auk*: 551-558) as to the Asiatic and Australian subspecies. As in the earlier revision I still believe it is best to unite the grass owls of these areas with the African ones to which the older name *capensis* pertains. The African forms are not treated here except to state that they are distinct racially from the others.

### *Tyto capensis longimembris* (Jerdon)

This race is found in suitable areas in India, Burma, and northern Indochina. Those from Indochina, judging from the two or three

specimens examined, are somewhat buffier than is usual, and hence are intermediate toward the following race.

**Tyto capensis chinensis** Hartert

Synonyms: *T. c. albifrons* Caldwell & Caldwell, and *T. c. mellit* Yen.

This race is found in southeastern China (Fukien, Kwangtung, and Kwangsi). It is the size of *longimembris* but is typically entirely tawny buff ventrally. Occasional examples of *longimembris* and *chinensis* may be rather similar but most specimens are readily separable.

**Tyto capensis pithecopis** (Swinhoe)

In the earlier revision I tentatively placed Formosan birds with *longimembris* of India, despite the intervention of the range of *chinensis*. The only specimen examined was inseparable. After examining four Formosan skins in the British Museum and one recently collected for the American Museum by Myles Walsh III, I question the locality of the specimen examined earlier and believe that a Formosan race should be recognized. Formosan birds on the average are buffier and more richly coloured than *longimembris* though less uniformly so, as a rule, than *chinensis*. From either of these races, *pithecopis* may be told by its larger size and more robust proportions. Measurements of wing in millimetres follow. Presumably the larger birds are females, but too few specimens are sexed to permit segregation.

Formosa: 344, 352, 353, 360, 363 (354.4).

India and Burma: 18 specimens, 318-347 (330.2).

**Tyto capensis amaurnota** (Cabanis)

The Philippine race, like *pithecopis*, is of larger size and with a more robust bill than *longimembris*. It lacks the buffiness of *pithecopis*, however, and is exceedingly close to *longimembris* in colour and pattern. Slight average differences in the size and distinctness of the tail bars are set forth in the earlier review.

**Tyto capensis papuensis** Hartert

This race inhabits the New Guinea grasslands. It is a well-marked form. The back is a clearer darker gray than in any of the other non-African races, and the dorsal markings are narrow white shaft streaks, not spots. The last character it shares with some specimens of *longimembris*. In size *papuensis* approaches or equals *pithecopis* and *amaurnota*. The wing lengths of four recently collected, well-prepared specimens in London are: ♂, 347, 348; ♀, 356, 357.

**Tyto capensis walleri** (Diggles)

Synonyms: *T. c. oustaleti* (Hartlaub) of Fiji, and *T. c. georgiae* Mathews, of Victoria, Australia.

Range: Northern and eastern Australia. The racial allocation of birds from Celebes and the near-by island of Kalidupa (one known from each) is in doubt, but they are best assigned to *walleri*.

The species formerly occurred in New Caledonia and on Fiji but has not been found in either area in many years. To be sure, the hot tall grasslands it inhabits are often shunned by collectors.

I have examined one specimen from New Caledonia in New York and another in London and also a specimen from Fiji in London. So far as I can determine from such meagre and, in this case, ancient material it is best to place the New Caledonia and Fiji birds under *walleri*. Even Australian specimens are by no means common in collections. I saw only one in London; the Mathews Collection in New York has four or five.

The race *walleri* is exceedingly similar to *longimembris* of India; in fact, if their ranges were continuous there could be no thought of separating them. It is possible that comparison of really adequate material might reveal further differences. Perhaps the species has spread comparatively recently from India to Australia and may still be recorded from some of the intervening areas, for example Sumatra. The recent astonishing discovery in Africa of another tytonid *Phodilus* shows how much is still to be learned about some of the more elusive owls.

On present appearances *walleri* differs from *longimembris* only by having, on the average, more dorsal and ventral spotting, and perhaps by averaging a little buffier.

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DEAN AMADON

### 13. LOCAL MOVEMENTS OF RESIDENT WATERBIRDS

Very little accurate data exist on the local movements of resident Indian birds within the country. We do not know for instance what happens to waterbirds like storks, herons, and egrets during years of scanty rainfall or drought in their nesting areas: whether these birds skip an unfavourable season altogether, or find alternative breeding areas elsewhere, and what distances they travel in the search. Neither do we know on what pattern the dispersal of the young takes place